US005999977A

United States Patent [19]

Riddle

[11] Patent Number: 5,999,977

[45] Date of Patent: *Dec. 7, 1999

[54] **SYSTEM FOR TERMINATING MULTICAST CHANNEL AND DATA BROADCAST WHEN AT LEAST TWO SECOND ENDPOINTS DO NOT TRANSMIT POSITIVE ACKNOWLEDGMENT MESSAGE TO FIRST ENDPONT**

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[*] Notice: This patent is subject to a terminal disclaimer.

[21] Appl. No.: **08/987,332**

[22] Filed: **Dec. 9, 1997**

Related U.S. Application Data

[63] Continuation of application No. 08/468,715, Jun. 5, 1995, abandoned, which is a continuation of application No. 08/396,198, Feb. 24, 1995, Pat. No. 5,854,898.

[51] **Int. Cl.**[6] **G06F 15/16**

[52] **U.S. Cl.** 709/227; 709/204; 709/231; 709/237; 709/228

[58] **Field of Search** 395/200.57, 200.34, 395/200.58, 200.61, 200.67; 709/227, 204, 231, 237, 228; 399/202

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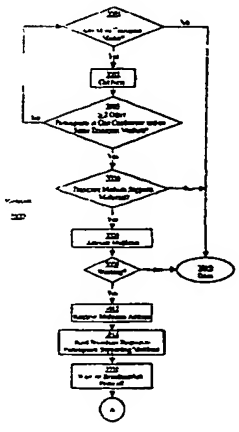
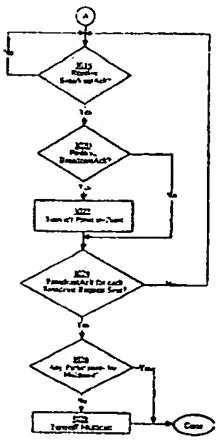
[57] **ABSTRACT**

A method and apparatus for optimizing transmission of data to a plurality of second endpoints in a system wherein a first endpoint is providing data to the plurality of second endpoints each connected by a point-to-point communication channels. This may be useful in teleconferencing applications with a plurality of participants (endpoints) or broadcast server applications. The first endpoint activates a multicast communication channel having a first multicast address and commences broadcast of the data over the multicast communication channel. The first endpoint transmits a request message to each of the plurality of second endpoints in order to query each of the second endpoints whether they can receive transmissions broadcast to the first multicast address. Certain of the plurality of second endpoints transmit an acknowledgment message if they can receive transmissions broadcast to the first multicast address, and the first endpoint receives the acknowledgment message. Then, for each acknowledgment message received from certain of the plurality of second endpoints, the first endpoint deactivates the point-to-point communication channel and the certain of the plurality of second endpoints.

15 Claims, 27 Drawing Sheets





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